C.W.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,990	04/27/2001	John R. Wolf	D-42816-02	1833

28236 7590 06/30/2003

CRYOVAC, INC.
SEALED AIR CORP
P.O. BOX 464
DUNCAN, SC 29334

EXAMINER	
TRAN, LOUIS B	

ART UNIT	PAPER NUMBER
3721	

DATE MAILED: 06/30/2003 10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/843,990	Applicant(s) WOLF ET AL.	
	Examiner Louis B Tran	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06/25/2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *14 April 2003* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is in response to applicant's amendment, Paper No. 9, received on 4/14/2003.

Drawings

2. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 04/14/2003 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the process carried out in a rotary vacuum machine must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 24 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one

skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With respect to claim 24, there is no depiction or description of how this process can be carried out in a rotary chamber vacuum machine. Merely stating that this can be accomplished in the summary of the invention is not enabling. Furthermore, stating that the rotary vacuum machines are well known in the art is not sufficient to show as to how it is practiced with the claimed process.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 21, 22, 25-27, 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henaux (5,845,463) in view of Nishimoto et al. (5,336,549).

Henaux discloses the invention substantially as claimed including placing a first product into a flexible, heat-shrinkable bag, the bag having an open top whereby a first bagged product having excess bag length results, repeating the placing step with a second product and a second beg, whereby a second bagged product results, stacking at least the first and second bagged products so that the excess bag length of each of the bagged products are on top of one another within a sealing distance of a means for heat sealing, heat sealing the inside layer of the first bag to itself in the region between

the open end of the first bag and the product, and the inside layer of the second bag to itself in the region between the open end of the second bag and the product so that the first product is completely sealed within the first bag and the second product is completely sealed within the second bag, the sealing being carried out at a temperature so that the resulting packaged products can be freely separated from one another without layer delamination as seen in Figure 1 (as in claim 21), wherein 2 and 3 bagged products are stacked on top of one another during heath sealing (as in claim 25 and 26).

Henaux does not specifically disclose a bag comprising a multi-layer film comprising a first layer, which is an inside bag layer, and which comprises polyolefin, a second layer comprising at least one member selected from the group consisting of polyolefin, polystyrene, and polyurethane, a third layer comprising a polyamide having a melting point of 160 °C and below and a fourth layer, which is an outside bag layer, comprising polyester.

However, Nishimoto et al. teaches the use of a bag comprising a multi-layer film comprising a first layer having an outer layer of an ethylene-butylene copolymer, a second layer of saponified ethylene/vinyl acetate, which is a polyolefin as described on lines 21-25 of page 18 in the applicant's specification, comprising about 13% of the total film thickness (as in claim 22), a layer comprising a polyamide with melting temperature of 135°C (as in claim 31), and a layer of polyester with a melting temperature of 237 °C (as in claim 33), wherein the polyester comprises from about 80 to about 95 mole percent terephthalate units (as in claim 30), wherein the bag is produced by sealing the

first layer to itself, whereby the first layer is an inside bag layer and fourth layer is an outside bag layer as discussed in column 1, lines 5-45, for the purpose of improved heat sealing as in column 1, lines 5-10.

Therefore, it would have been obvious to one having ordinary skill in the art to provide Henaux with a bag of Nishimoto et al. in order to achieve higher quality heat sealing.

With respect to claims 27 and 29, the modified process of Henaux discloses the claimed invention except for polyamide making up at least 40 or 50 weight percent of the third layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to find an optimum weigh percent, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).*

With rspect to claim 32, the modified process of Henaux discloses the claimed invention except for a melting point for polyolefin in the first layer from about 50°C to less than 125 °C. It would have been obvious to one having ordinary skill in the art at the time the invention was made to find an optimum melting point range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller, 105 USPQ 233.*

8. Claims 23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henaux (5,845,463) in view of Nishimoto et al. (5,336,549) in further view of Oberle et al. (4,469,742).

The modified process of Henuax does not specifically show an O_2 barrier layer, the fifth layer comprising at least one member selected form the group consisting of EVOH, PVDC, polyalkylene carbonate, polyamide, and polyethylene naphthalate.

However, Oberle et al. teaches the use of a barrier layer consisting of EVOH for the purpose of providing delamination resistance as described in column 4, line 50. Oberle et al. also teaches film oriented with a shrink capacity of 30-55% at 185°F as in column 5, lines 29-32 (as in claim 28).

Therefore, it would have been obvious to one having ordinary skill in the art to provide a barrier layer in order prevent delamination.

With respect to claim 28, although Nishimoto et al. does not specifically teach the thickness uniformity of the film it would be obvious to one of ordinary skill to use films with a high thickness uniformity, in order to maintain a uniformity in physical properties throughout the film.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henaux (5,845,463) in view of Nishimoto et al. (5,336,549) in further view Owensby et al. (4,550,548

The modified process of Henaux discloses the invention substantially as claimed but does not show the process being carried out in a rotary chamber vacuum machine. However, Bullock et al. teaches the use of a rotary chamber vacuum machine for the purpose of sealing multi-layer material as seen in Figure 2

Therefore, it would have been obvious to one having ordinary skill in the art to provide a rotary chamber vacuum machine in order to carry out the process in order to adapt to standard manufacturing settings as in column 1, line 11.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is Reimann.

Applicant's remarks have been fully considered but are deemed non-persuasive. Applicant contends that the rotary chamber vacuum machine is not required because these machines are well known in the art, which is noted. However, a drawing is still required to show how the claimed process is practiced with the rotary machine. Unless the applicant is admitting that the claimed process practiced with rotary machines is well known, one of ordinary skill would not be able to extrapolate how the claimed process would be implemented with the well known device. Drawings of the claimed process are essential to the understanding of the invention.

Applicant contends that the language "stacked on top of one another" can only be defined as depicted in newly proposed Figure 5 of the applicant's invention. However, claims are given their broadest reasonable interpretation and applicant has not defined any orientation or axis or plane of reference. Recalling the definition of stack:

> **stack** (stàk) *noun*
> **1.** An orderly pile, especially one arranged in layers.[1]

---

[1] *The American Heritage® Dictionary of the English Language, Third Edition* copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

Given no orientation limitations, Henaux easily meets the limitations of "stacked on top of one another" as it can be seen in Figure 1, the bags can be described as an orderly pile arranged in layers.

For the reasons above, the grounds of rejection are deemed proper.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis B Tran whose telephone number is 703-305-0611. The examiner can normally be reached on 8AM-6PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I Rada can be reached on 703-308-2187. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

lbt
June 12, 2003

Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700